

**CMMI Partners Workshop, Charlotte, NC**  
**Improving Processes in Small Settings - Breakout Session - October 17, 2006**

*Caroline Graettinger (SEI), Gian Wemyss (SEI), and Lynn Penn (Lockheed Martin Corporation) would like to extend their sincere Thanks to all the participants of this breakout session. Your enthusiastic contributions to this work are greatly appreciated.*

*For more information on the IPSS project, please visit the Web site*

<http://www.sei.cmu.edu/iprc/ipss.html>

**1. Why did you attend this breakout session?**

- Looking for “minimal” process improvement, what does it mean, what are some techniques?
- Consulting with small businesses (15-20 people) means limited overhead, consultants seem expensive to the small business
- Interested in small groups within large organizations
- Interested in small businesses in large teams
- Interested in process improvement after mergers and acquisitions of small businesses into large organizations
- Interested in small projects, even of just one person, and projects of short duration, between 1 month and 1.5 yrs
- Interested in collaborating with the SEI and/or the community
- Grass roots / small adoption approach in a large org
- Want to extend use of the CMMI to small businesses in different domains, e.g., machine manufacturing,
- If there’s already good communication in small groups → why document for the sake of an appraisal
- How to do appraisals for smalls
- Interested in small subsidiaries
- Do Generic Practices have a special role for smalls?
- Need an operational definition for “small” – how small is “small”?
- Would like a roadmap to CMMI for smalls.
- Maintenance often done by small teams
- Not been able to create a process for small settings that is CMMI-compliant
- Outsourcing to small businesses, starting to push for CMMI “levels”
- Tailoring from corporate processes is not the answer
- Interested in process improvement in small suppliers
- Have found that tool choices are important to reduce adoption pain
- Small start-up businesses → would benefit from project Start-up “Kits”
- Looking for an answer to the question “how small of an org can benefit from CMMI”
- I have a 3 person company that has customer requirements for Maturity Level 3
- My clients are semi-conductor companies, using AGILE, how can I show them how what they’re doing is at least partly CMMI compliant?

- Want to know how to recognize alternative implementations that achieve the goals of Normative vs. Prescriptive
- Interested in process improvement for the benefits, not the “maturity level” stamp, want to know best practices for doing that in small settings
- Would like guidelines from the SEI for scaling to small settings that are consistent from business to business
- Interested in being able to provide structure to a small project (3-6 months) that is also geographically dispersed
- I’m here to share/learn
- How to implement CMMI in short-time frame projects
- “Project in a Box” – this is a vision for our long term results
- Successes are out there – let’s find them and document them
- Interested in understanding the overall IPSS research approach
- Interested in improving my processes as a PI consultant
- When a small is using a consultant, I think it’s important for them to verify that the consultant understands the small settings
- My government is interested in bringing CMMI to regional small businesses to reduce unemployment
- Cost of consultant – high for a small business

## **2. Appraisal Issues**

- Appraisal cost (3 votes)
- Interview construction to avoid conflicts with work & among interviewees (mgr. & employee etc.) (6 votes)
- Life cycle coverage
- Example of alternative practices (scaled down) (3 votes)
- Selection of objective appraisal team members (1 votes)
- Likelihood of raising flags at SEI with adaptations such as very short time frame
- Preventing overwhelming small teams with need for VOE
- Sampling issues e.g. a few projects out of large number of small projects (10 votes)
  - documenting sampling decisions, project description
  - meeting appropriate % of population without large number of projects in sample
- Demonstrating institutionalization (2 votes)
- Impact of attrition on project rating / responsibility of SEI as to apparent meaning of rating (4 votes)

## **3. Implementation Issues**

- Alternative Practices
- Tool Support & Environment

- Scale Ability
- Overhead Control
- Informal Structure
  - First things First
  - Use Appraisers who are knowledgeable with the small setting
  - KSAs & Inst'n
  - Workflow – Embedded Implementation
- Order of Implementation
- Focusing on the Right Thing?
  - Life Cycle
  - Vs.
  - Processes/Model
- How to Acquire the:
  - Knowledge to Implement
  - Resources
  - Workflow Integration
- What Knowledge/Experience of Appraisers/Consultants is needed?
- Compensate for CMMI (Form of Ret, Bias, O.S. OT → Knowledge Skills, Acquisition)
- Demonstrating Value/Return on Investment
- Triage: Solve Problems
- Alternative/Lean Policies
- Balancing the need for
  - Proc. Transparency vs. How to “Stealth” CMMI
  - Discipline / Evidence
  - Re / Enforcement
- Identify and pull on knowledgeable Resources to create “Project. in a Box”

#### 4. Consulting Issues

- Market driven vs. Customer Driven Small
- Kit/of accepted Alternative Practices\*
- Small Solution must be able to evolve\* as the small evolves
- Developing Growing Processes
  - x-Small – (Small → Medium → Big) → xBig
  - i.e. 2-6      12      100      506      1000 →
- Processes by type of
  - a) Applications
  - b) Technical difficulties
- Revisit all of them\*
- Simplified Roles List
- Alternative Practices

- Tool Set per Use Cases\*
- When does it make sense or not?
- Model Addition for Small Amplification
- Process Improvement w/o Rating
- Convince Bank to deal w/Small
- Government investment & \$\$
- Business Case for Small to get \$\$
- Partial application of the model
- How can they afford US?
- How to Advise the Small Settings
- Tool Kit for Small Settings
- Small Project – Definition?
- Multiple Variety of Small Projects
- Look & Feel for Small Projects Processes
- What is too small?
- How small is (too) small? for CMMI?
- \$ for Process Improvement (Overhead)
- Prioritize PA (ML 1.5, 2.0, 2.5, 3.0 . . .)
- Tools (available – Open Source)
- Gap Analysis – Self Assess
- “Lead Appraiser” for Small Settings
- More guidance on typical work products for smalls
- MDD guidance for Small
- xxxSmall vs. xSmall
- CMMI by Force, not by Choice\*
- Why not stop at the goal level?
- Ways to combine PA, ending w/less PA (22 → 10)
- Generic Practices in Small??? (i.e., GP 2.3, 2.4, 2.5, 2.7, 2.10)
- Added value by adding CMMI
- How to move from Small to BIG

## 5. “Other” Issues

- Inclusion of PM, Business Management, Finance, Human Resources, etc. from across the small business, into the process improvement effort
- Apply AGILE Methods (Expand successful concepts)
- Overlay efficient change management with model-based improvements delivery mechanism, user-friendly work environment
- No-downtime process improvement
- Small short-term projects
- Tailoring guidelines to scale-down based on project attributes
- Leverage prior work done by Hughes / SEI to interpret CMMI terminology for small/medium/large projects

- CMMI
  - 1) Tailoring Guidelines based on:
    - a) P. I. Approach
    - b) Variables (Size, Resources, Time)
- P.I.
  - 2) Jump-Start Mechanism for Small Projects/Settings and/or Multi-Environments
  - 3) Do-It-Yourself Kit for Small Projects

## 6. Attendees/Participants

<u>Name</u>	<u>Company</u>
Debra Roy	BAE Systems
M. Lynn Penn	MC IS&S
Bryan Douglas	Alcatel
Pimporn Hancha Lert	Software Park
Viviana Rubinstein	Liveware, Inc.
John Yu	Business Strategy
Sam Yao	PI-21 Inc.
Boris Mutafelija	SSCI
Pablo Henriquez	Procesix Inc.
Chris Carmody	UPMC
Ed Joseph	iPower LLC
Zhuolei Zhang	Process Improvement Asia
Neil Potter	The Process Group
Jose McSancho	Sopra Profit
Rad Nageshwar	SAFE Techno (Japan) (TP)
Shinn Jong Lee	Siemens AG
Hien Le	Bearing Point
Wam Juyong	Delivery Excellence
Atsushi Yamada	
Sam Gao	CNI
Dick Waina	MDM
Andrea Plowright	Perot Systems
Kaz Koimaru	Fujitsu
Masao Kohori	Fujitsu
Yukio Miyazaki	Fujitsu
Dr. Terry Bannister	Chenega Corp.
Kathy Smith	EDS
Don Franke	DFA
Joan Wieszka	Lockheed Martin
Stuart Jeans	BAE Systems
William Deiblor	SSQC
Diane McDonald	StepUp Solutions
Kathy Dailey	General Dynamics IT
Bob Patterson	CSC
Dave Malas	Process Pathways

Lemis Altan	Cognence, inc.
Mira Culley	EDS
John Maher	O&PI/SEI
Subrata Guha	Satyam
Pieter Van Zyl	NedbankJCSE
Tami Zemel	Tangram
Hillel Glazer	Entinex, Inc.
Deborah Hunt	iPower LLC
Sonny Wolfe	SAIS
Sean Cassell	SSCI
Bill Smith	SSCI
Mark Amaya	Synchno PP&T
Richard Darken	SAIC
Yoshihiro Akiyama	SEI